

## ARCHITECTURAL STAGING NOTES

- A. THE MEMBRANE WATERPROOFING SHALL LAY FLAT ON TOP OF THE CONCRETE SLAB BEFORE CEMENT FINISH COATING IS APPLIED IN PLACE, AFTER THE SLAB EXTENSIONS ARE CONSTRUCTED AND ALIGNED WITH THE ADJACENT FLOOR SLAB AFTER THE REQUIRED STRUCTURAL SUPPORTS HAVE BEEN INSTALLED.

### STAGE I

1. THE CORRIDOR CONCRETE SLAB SHALL BE CONSTRUCTED, EXTENDED TO THE END OF THE CORE WALL AT SS 76 N TOWER ONE AND SS 76 W TOWER TWO TO MATCH THE ADJACENT EXISTING SLAB.
2. PORTION OF EXISTING CONCRETE CURB AND CONCRETE PAD SHALL BE REMOVED AFTER THE REMOVAL OF THE MECHANICAL H.V.A.C. UNIT DURING THE CONSTRUCTION OF THE ELECTRICAL SUBSTATION AS SHOWN ON CONSTRUCTION STAGING PLAN.
3. PATCH-UP DAMAGED CONCRETE SLAB AND EXISTING FLOOR SLAB OPENING TO MATCH EXISTING CONDITION AFTER THE REMOVAL OF EXISTING AIR PLENUM.
4. EXISTING CONCRETE CURB, METAL LADDER AND METAL RAILING SHALL BE REMOVED. PATCH-UP THE EXISTING OPENING THAT WAS DAMAGED DURING THE REMOVALS PHASE OF CONSTRUCTION.
5. PORTION OF EXISTING PARTITION AND SOME DOORS SHALL BE REMOVED AFTER THE REMOVAL OF EXISTING ELECTRICAL CONDUITS AND SWITCHGEAR.
6. EXISTING 3 1/2" DIAMETER LALLY COLUMNS, EXCEPT THOSE BEING REPLACED BY BEAM "X", SHALL BE REMOVED AFTER THE STRUCTURAL SUPPORTS ARE INSTALLED IN PLACE.
7. ALL OF THE PARTITION ENCLOSURES SHALL BE CONSTRUCTED IN PLACE AFTER THE REMOVAL OF EXISTING MECHANICAL EQUIPMENT AND PARTITION.
8. SLAB EXTENSION NO. 1 SHALL BE CONSTRUCTED TO MATCH EXISTING FLOOR SLAB BEFORE THE INSTALLATION OF THE MECHANICAL H.V.A.C. UNIT A.C.S. - 75N.
9. AT PORTION OF SLAB OPENING PROVIDE TEMPORARY SAFETY SCAFFOLDING AND PLATFORM FOR THE REMOVALS, DELIVERY AND INSTALLATION OF MECHANICAL H.V.A.C. UNIT ACS-75-1 AND ACCESS TO ELECTRICAL CONDUIT.
10. SLAB EXTENSION NO. 2 SHALL BE CONSTRUCTED TO MATCH THE CONSTRUCTION OF EXTENSION NO. 1 TO BE IN PLACE BEFORE THE INSTALLATION OF THE MECHANICAL H.V.A.C. UNIT A.C.S. - 75N.
11. FIRST PORTION OF EPOXY COATING CEMENT SHALL BE APPLIED ON THE TOP OF EXISTING FLOOR AFTER THE REMOVAL OF MECHANICAL EQUIPMENT AND BEFORE THE DELIVERY AND INSTALLATION OF ELECTRICAL SWITCHGEAR UNIT IN PLACE PRIOR TO THE MECHANICAL H.V.A.C. UNIT.
12. PORTION OF EXISTING PARTITION CEILING AND FLOOR SHALL BE REMOVED BEFORE THE REMOVAL OF THE MECHANICAL AIR PLENUM.
13. CUT EXISTING PARTITIONS AND PROVIDE OPENINGS FOR ELECTRICAL CONDUIT AND MECHANICAL DUCT PENETRATION.

### STAGE II

1. FLOOR SLAB SHALL BE CLEANED, PATCH-UP ALL CRACKED AND DAMAGED AREAS AFTER THE REMOVAL OF EXISTING ELECTRICAL SWITCHGEAR. TO MATCH EXISTING CONCRETE SLAB.
2. SECOND PORTION OF EPOXY CEMENT COATING SHALL BE APPLIED ON TOP OF EXISTING FLOOR BEFORE THE DELIVERY AND INSTALLATION OF ELECTRICAL TRANSFORMER UNIT IN PLACE PRIOR TO MECHANICAL H.V.A.C. UNIT.
3. REMOVE AND REPLACE EXISTING METAL PARTITIONS AND PROVIDE METAL LOUVER TO SUIT MECHANICAL DUCT OPENING BEFORE H.V.A.C. UNIT IS SET IN PLACE.
4. GALVANIZED STEEL RAILING SHALL BE INSTALLED IN PLACE AFTER MECHANICAL H.V.A.C. UNIT IS DELIVERED AND SET IN PLACE.
5. GALVANIZED STEEL LADDER AND GALVANIZED STEEL RAILING SHALL BE INSTALLED AT 76TH FLOOR SOUTH SIDE ONLY AFTER MECHANICAL H.V.A.C. UNIT IS IN PLACE.
6. ALL THE REQUIRED UPGRADED PARTITIONS AND DOORS SHALL BE INSTALLED IN PLACE AFTER THE COMPLETION OF THE SLAB EXTENSION ABOVE FLOOR.

### STAGE III

1. FLOOR SLAB SHALL BE CLEANED, PATCH-UP ALL CRACKED AND DAMAGED AREAS FROM THE REMOVAL OF EXISTING ELECTRICAL SWITCHGEAR AND AIR DUCT TO MATCH EXISTING.
2. LAST PORTION OF EPOXY CEMENT COATING SHALL BE APPLIED ON TOP OF EXISTING FLOOR BEFORE THE DELIVERY AND INSTALLATION OF ELECTRICAL SWITCHGEAR UNIT IN PLACE PRIOR TO MECHANICAL H.V.A.C. UNIT.
3. SLAB EXTENSION NO. 3 SHALL BE CONSTRUCTED TO MATCH THE ADJACENT SLAB EXTENSION NO. 1 AND NO. 2 AFTER THE REMOVAL OF TEMPORARY SCAFFOLDING AND PLATFORM.
4. ALL SIX SUBSTATIONS AND MECHANICAL ROOMS SHALL BE PAINTED AFTER THE INSTALLATION OF ALL ELECTRICAL SWITCHGEAR, TRANSFORMER, MECHANICAL H.V.A.C. UNIT AND OTHER EQUIPMENT IS SET IN PLACE.
5. THE CEILING SHALL BE INSTALLED AND SET IN PLACE AFTER ALL THE CONSTRUCTION AND THE MECHANICAL AND ELECTRICAL EQUIPMENT IS COMPLETED, SET IN PLACE AT 76TH FLOOR OF TOWERS ONE AND TWO.
6. ALL THE DOOR LOCKS, ELECTRICAL SYSTEMS AND MECHANICAL H.V.A.C. UNITS SHALL BE TESTED BEFORE TURNING THE KEY OVER TO THE ENGINEER.

## FIREPROOFING REQUIREMENTS

ALL STRUCTURAL STEEL SHALL BE SPRAYED-ON FIREPROOFED WITH MEDIUM DENSITY CEMENTITIOUS FIREPROOFING AS PER THE FOLLOWING SCHEDULE:

COLUMNS	: 2 HOURS
BEAMS	: 2 HOURS
GIRDERS	: 2 HOURS
SLAB	: 2 HOURS

## CONTROLLED INSPECTIONS

THE FOLLOWING ITEMS ARE SUBJECT TO CONTROLLED INSPECTIONS IN ACCORDANCE WITH ARTICLE 27-132 OF NYC BLDG. CODE:

1. FIRESTOPPING WITHIN BUILDINGS
2. FIREPROOFING OF STRUCTURAL STEEL
3. FIRE STANDPIPE SYSTEMS
4. SPRINKLER SYSTEMS
5. HVAC SYSTEMS
6. SUSPENDED CEILING SYSTEMS

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THE PORT AUTHORITY  
OF NY & NJ

*Robert K. Lawrence*  
ENGINEERING PROGRAM MANAGER  
WORLD TRADE CENTER  
CHIEF ARCHITECT

Engineering Department  
Design Division  
The World Trade Center  
Electrical/HVAC  
Upgrade Program

TOWERS ONE AND TWO  
LOW VOLTAGE SUBSTATIONS  
CONSTRUCTION AND  
INSTALLATION

ARCHITECTURAL  
CONSTRUCTION  
STAGING NOTES,  
FIREPROOFING AND  
CONTROLLED INSPECTIONS

No. Date Revision Approved  
This drawing subject to conditions in contract.  
All inventions, ideas, designs and methods  
herein are reserved to Port Authority and  
may not be used without its written consent.

G.FARLEY G.FARLEY D.GALANG  
Designed by Drawn by Task Leader

Principal Architect

Date 5/1/95 Scale AS SHOWN

Contract Number Drawing Number

WTC-802.071 A-2

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT  
COPY OF ONE OF THE CONTRACT DRAWINGS CON-  
STITUTING A PART OF CONTRACT NO. WTC-802.071  
IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT  
THE TIME THE SAID CONTRACT WAS EXECUTED BY  
THE PARTIES.

DATE 6/21/95 *William A. Adams*  
SPEC. WRITER

DATE 8/15/95 *Robert K. Lawrence*  
ENGINEER OF DESIGN